

**Notice of Allowability**

Application No.

09/421,713

Examiner

Kambiz Abdi

Applicant(s)

WINTER ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2 december 2005.
2. ☒ The allowed claim(s) is/are 1-5, 8-41, 47, and 49 (Renumbered as claims 1-42).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 16 February 2006.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
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### DETAILED ACTION

1. Text of all the office actions previously forwarded to the applicant as well as all the responses to such office actions has been incorporated by reference.

- Claims 6, 7, 42-46, 48, and 50 have been canceled.
- Claims 1, 27, 35, 40, 41, 47, and 49 have been amended.
- Claims 1-5, 8-41, 47, and 49 are allowed.

### *Drawings*

2. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the drawings are not of sufficient quality and are not in compliance with 37 CFR 1.121. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

### Examiner's Amendment

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

4. Authorization for this examiner's amendment was given in an interview with attorney Amir N. Penn conducted via telephone on 15 February 2006.

5. The examiner under agreement by the attorney representing the applicant has amended independent claims 1, 27, 35, 40, 41, 47, and 49. Also canceling claims 6, 7, 42-46, 48, and 50.

The claims in the application has been amended as follow:

1. (Currently Amended) A method of facilitating, managing and coordinating operation of a competitive marketplace for an energy system comprising generating units using a communication network, the method comprising the steps of:

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(a) collecting for a predetermined time interval supply side bids for quantity and price of energy services from a plurality of energy services providers over the communication network and collecting demand side bids for quantity of energy services from a plurality of energy services consumers over the communication network;

(b) receiving at least one real time condition comprising data related to at least one of the generating units for the predetermined time interval that is different from at least one quantity of the supply side bids or quantity of the demand side bids;

(c) arranging, according to price, the supply side bids from the energy service providers that dispatched energy services for the predetermined interval based on the real time condition;

(d) electronically calculating a clearing price for the dispatched energy services regardless of location in the energy system for the predetermined time interval, the calculating of the clearing price being performed after dispatching the energy services in order to account for the real time condition, wherein the clearing price is a price for a supply side bid arranged in step (c) at which quantities for supply side bids equals the energy services dispatched to the consumers, the clearing price being equal for the energy services dispatched to all consumers that received energy services; and

(e) calculating settlement information based upon the clearing price calculated in step (d).

2. (Previously presented) A method according to claim 1 further comprising step (f) of creating an invoice for each of the plurality of providers and consumers from the settlement information calculated in step (e) and forwarding the invoice for each providers and consumers to the provider's and consumer's work station over the Internet.

3. (Previously presented) A method according to claim 1 wherein step (c) comprises stacking the supply side bids from the energy services providers that supplied energy services for the predetermined time interval from lowest price to highest; and

wherein calculating the clearing price comprises matching demand for the energy services supplied with a bid in the stack.

4. (Previously presented) The method of claim 1 further comprising step (f) of collecting contract information from at least one provider and consumer.

5. (Previously presented) The method of claim 1 wherein step (e) comprises calculating accounts payable and accounts receivable.

6. (Cancelled)

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7. (Cancelled)
8. (Previously presented) The method of claim 1 wherein step (e) comprises steps (e)(i) of receiving meter information and (e)(ii) calculating accounts payable and receivable by multiplying the received meter reading data by the clearing price calculated in step (d).
9. (Previously presented) The method of claim 1 wherein step (e) comprises step (e)(i) of confirming that data necessary to complete settlement for a trading interval is available.
10. (Previously presented) The method of claim 4 further comprising step (g) of collecting hourly meter reading data and wherein step (f) of collecting contract information includes step (f)(ii) of overriding step (e) and calculating settlement information based upon contract price and meter reading data.
11. (Previously presented) The method of claim 4 further comprising step (g) of sending a confirmation notice to the customer over the communication network that the contract collected in step (f) has been accepted.
12. (Previously presented) The method of claim 1 further comprising step (f) of receiving trading interval meter reading data.
13. (Previously presented) The method of claim 12 further comprising step (g) of receiving monthly meter reading data.
14. (Previously presented) The method of claim 12 further comprising step (g) of validating each trading interval meter reading data.
15. (Previously presented) The method of claim 12 further comprising step (g) of modifying trading interval meter reading data.
16. (Original) A method according to claim 1 wherein step (a) is implemented through a graphical user interface.
17. (Original) A method according to claim 1 wherein step (a) is implemented through a bulk file upload facility.
18. (Previously presented) A method according to claim 1 further comprising step (f) of viewing bid information collected in step (a).

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19. (Previously presented) A method according to claim 1 further comprising step (f) of modifying bid information collected in step (a).

20. (Previously presented) A method according to claim 1 further comprising step (f) of verifying that a price and energy level value exist for each trading interval within a scheduled dispatch period.

21. (Original) A method according to claim 1 further comprising step (a) of collecting AGC bid data per unit per scheduled dispatch period.

22. (Previously presented) A method according to claim 1 further comprising step (f) of notifying a provider and consumer that the bid information collected in step (a) is accepted.

23. (Previously presented) A method according to claim 4 wherein the contract information has pre-determined condition associated therewith and the dispatching of the energy services is performed only if the pre-determined condition associated with the contract is met.

24. (Previously presented) The method of claim 1 further comprising a step (f) of providing a market information publishing component that supplies a variety of customer informational needs.

25. (Previously presented) The method of claim 1 further comprising a step (f) of providing a database population component that reorganizes data from many different sources into a common repository designed to suit providers' and consumers' needs.

26. (Previously presented) The method of claim 25 further comprising a step (g) of providing a report generation component that creates a report whenever a provider and consumer so requests wherein the report generation component takes data from the database population component.

27. (Currently Amended) A system for managing and coordinating the operation of a competitive energy marketplace, the system comprising:  
a processor,  
a memory,  
wherein the memory stores a market operator;  
a power system component that represents a network model of a physical power system comprising generating units for dispatching energy services;

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a customer component that manages information about entities that have a business relationship with the market operator, wherein the power system component and customer component are operatively coupled to the market operator to receive data from the market operator;

a bid component that enables customers to submit bids for a predetermined period for energy services, wherein customers include energy services providers and energy services consumers;

a meter reading component that stores meter readings submitted by energy services consumers, wherein the bid component and meter reading component are operatively coupled to energy services consumers;

a settlement component that receives at least one real time condition comprising data related to at least one of the generating units for the predetermined time interval that are different from at least one of the submitted bids, the settlement component determines an equal energy services clearing price regardless of location in the power system during the predetermined time interval based on the bids from the providers and the consumers submitted for the predetermined period and based on the real time condition for the predetermined time interval, the determining of the equal energy services clearing price being performed after dispatching the energy services in order to account for the real time condition, and that financially settles all markets based upon meter readings, operational information, bids and clearing prices, wherein the settlement component is operatively coupled to the power system, customer, bid and meter reading components to receive data therefrom; and

a bill component operatively coupled to receive data from the customer and settlement components, wherein the bill component summarizes the financial activity for each customer to be used on an invoice for services provided and/or received; and

the processor executing the components.

28. (Original) The system of claim 27 wherein the bid component enables customers to submit bids via a graphical user interface.

29. (Original) The system of claim 27 wherein the bid component enables customers to submit bids via bulk file upload facility.

30. (Original) The system of claim 27 further comprising a contract component operatively coupled to the settlement component wherein the contract component enables customers to submit contracts for services.

31. (Original) The system of claim 30 wherein the contract component enables customers to submit contracts via a graphical user interface.

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32. (Original) The system of claim 30 wherein the contract component enables customers to submit contracts via a bulk file upload facility.

33. (Original) The system of claim 30 further comprising a market information publishing component that receives data from the customer, settlement, bill, meter reading, contract bid and power system components.

34. (Original) The system of claim 33 wherein the market information publishing component includes a database population component and a report generation component.

35. (Currently Amended) A method of facilitating, managing and coordinating operation of a competitive marketplace for an energy system comprising generating units using a communication network, the method comprising the steps of:

(a) collecting for a predetermined time interval supply side bid information for quantity and price of energy services from a plurality of energy services providers and collecting demand side bid information for quantity of energy services from a plurality of energy services consumers;

(b) collecting contract information for energy services from at least one of the plurality of energy services providers and consumers;

(c) receiving at least one real time condition comprising data related to at least one of the generating units for the predetermined time interval that is different from at least one quantity of the supply side bid information or quantity of the demand side bid information;

(d) electronically scheduling operation of units that provide the energy services according to the bid and contract information collected in steps (a) and (b), according to the real time condition;

(e) deploying the operation of the units scheduled in step (d) in order to dispatch the energy services;

(f) electronically collecting meter reading information from the units scheduled in step (e); and

(g) electronically settling the market in accordance with the bid and contract information collected in steps (a) and (b), the real time condition, and meter reading information collected in step (f), wherein settling the market comprises calculating a clearing price for energy services regardless of location in the energy system for the predetermined time interval, the calculating of the clearing price being performed after dispatching the energy services in order to account for the real time condition, wherein the clearing price is a price for a supply side bid at which quantities for supply side bids

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equals the energy services deployed in step (e), the clearing price being equal for all energy services consumers that received energy services in step (e).

36. (Previously presented) The method of claim 35 further comprising step (h) of billing the plurality of energy services consumers according to the settlement determined in step (g).

37. (Previously presented) The method of claim 35 further comprising step (h) of providing the schedule determined in step (e) to the plurality of energy services providers and consumers.

38. (Previously presented) The method of claim 35 further comprising step (h) of providing settlement information determined in step (g) to the plurality of energy services providers and consumers.

39. (Previously presented) The method of claim 35 wherein steps (a), (b) and (f) are performed over the Internet.

40. (Currently Amended) A computer program embodied on a computer readable medium for interfacing with a competitive marketplace for an energy system comprising generating units, the computer program comprising:

computer executable code for collecting for a predetermined period supply side bids for quantity and price of energy services from a plurality of energy services providers over a communication network and collecting demand side bids for quantity of energy services from a plurality of energy services consumers over the communication network;

computer executable code for receiving at least one real time condition comprising data related to at least one of the generating units for the predetermined period that is different from at least one quantity of the supply side bids or quantity of the demand side bids;

computer executable code for scheduling operation of units that provide the energy services for the predetermined period;

computer executable code for dispatching the energy services;

computer executable code for calculating a clearing price for the energy services regardless of location in the energy system for the predetermined time interval, the calculating of the clearing price being performed after dispatching the energy services in order to account for the real time condition, wherein the clearing price is a price for a supply side bid at which quantities for supply side bids equals the energy services dispatched to the consumers in the predetermined period, the clearing price being equal for all consumers that received energy services for the predetermined period; and

code for calculating settlement information based upon the clearing price calculated and the bids collected.



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41. (Currently Amended) An article of manufacture for facilitating operation of a competitive marketplace for an energy system comprising generating units, the article of manufacture comprising a computer readable medium having a management interface instructions comprising:

computer executable code for collecting supply side bids for a predetermined period for quantity and price of energy services from a plurality of energy services providers over a communication network and collecting demand side bids for quantity of energy services from a plurality of energy services consumers over the communication network;

computer executable code for receiving at least one real time condition comprising data related to at least one of the generating units for the predetermined period that is different from at least one quantity of the supply side bids or quantity of the demand side bids;

computer executable code for dispatching energy services for the predetermined period based on the real time condition;

computer executable code for arranging, according to price, the supply side bids from the energy services providers that supplied energy services in the predetermined period;

computer executable code for calculating a clearing price for the energy services regardless of location in the energy system for the predetermined time interval, the calculating of the clearing price being performed after dispatching the energy services in order to account for the real time condition, wherein the clearing price is a price for a supply side bid at which quantities for supply side bids equals the energy services dispatched to the consumers in the predetermined period, the clearing price being equal for all consumers; and

computer executable code for calculating settlement information based upon the clearing price and the bids collected.

42. (Canceled)

43. (Canceled)

44. (Canceled)

45. (Canceled)

46. (Canceled)

47. (Currently Amended) A method of facilitating, managing and coordinating operation of a competitive marketplace for an energy system comprising generating units using a communication network, the method comprising the steps of:

collecting for a predetermined time interval supply side bids for quantity and price of energy services from a plurality of energy services providers over the communication network and collecting demand side bids for quantity of energy services from a plurality of energy services consumers over the communication network;

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receiving data related to at least one of the generating units for the predetermined time interval that is different from at least one quantity of the supply side bids;

arranging, according to price, the supply side bids from the energy service providers that dispatched energy services for the predetermined interval based on the data related to the at least one generating units;

electronically calculating a clearing price regardless of location in the energy system for the dispatched energy services for the predetermined time interval, the calculating of the clearing price being performed after dispatching the energy services in order to account for the data related to the at least one generating units, wherein the clearing price is a price for a supply side bid arranged for the predetermined period at which quantities for supply side bids equals the energy services dispatched to the consumers in the predetermined period; and

calculating settlement information based upon the clearing price calculated.

48. (Canceled).

49. (Currently Amended) A computer program embodied on a computer readable medium for interfacing with a competitive marketplace for an energy system comprising generating units, the computer program comprising:

computer executable code for collecting for a predetermined time interval supply side bids for quantity and price of energy services from a plurality of energy services providers over the communication network and collecting demand side bids for quantity of energy services from a plurality of energy services consumers over the communication network;

computer executable code for receiving data related to at least one of the generating units for the predetermined time interval that is different from at least one quantity of the supply side bids;

computer executable code for arranging, according to price, the supply side bids from the energy service providers that dispatched energy services for the predetermined interval based on the data related to the at least one generating units;

computer executable code for calculating a clearing price regardless of location in the energy system for the dispatched energy services for the predetermined time interval, the calculating of the clearing price being performed after dispatching the energy services, wherein the clearing price is a price for a supply side bid arranged for the predetermined period at which quantities for supply side bids equals the energy services dispatched to the consumers in the predetermined period; and

computer executable code for calculating settlement information based upon the clearing price calculated.

50. (Canceled).

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***Allowable Subject Matter***

6. Claims 1-5, 8-41, 47, and 49 allowed over the prior art of record.

The following is a statement of reasons for the indication of allowable subject matter:

7. The closest prior art of record is U.S. Patent No. 6,343,277 to John Gaus et al. discloses a computer-assisted method of facilitating a transaction between an energy consumer-client desiring an energy contract and an energy supplier. The method includes posting a buy order where the supplier can access the buy order via a computer network and receiving a bid from the supplier via the network. The method also includes accepting the bid via the network when a precondition is met.

Also U.S. Patent No. 6,047,274 to Jack J. Johnson et al. discloses an auction service that stimulates competition between energy suppliers (i.e., electric power or natural gas). A bidding moderator (Moderator) receives bids from the competing suppliers of the rate each is willing to charge to particular end users for estimated quantities of electric power or gas supply (separate auctions). Each supplier receives competing bids from the Moderator and has the opportunity to adjust its own bids down or up, depending on whether it wants to encourage or discourage additional energy delivery commitments in a particular geographic area or to a particular customer group. Each supplier's bids can also be changed to reflect each supplier's capacity utilization. Appropriate billing arrangements are also disclosed. In addition, the reference; Thomas, Samuel C., "An East Coast View: The Right Price for PJM," Public Utilities Fortnightly, v135n18, pg. 40-44, Oct. 1, 1997 ("The LMP reference") discloses the post calculation of prices of utility or energy demand that is market (location, regional) dependent.

8. In regards to independent claims 1, 27, 35, 40, 41, 47, and 49 the closes prior art of record when taken either individually or in combination with other prior art of record fails to teach or suggest the collection of information regarding bids and contract information for energy delivery as well as collecting real time condition of the generating units and calculating the clearing price after the dispatch of the energy services and regardless of the location of the network, as is shown in step of;

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(a) collecting for a predetermined time interval supply side bids for quantity and price of energy services from a plurality of energy services providers over the communication network and collecting demand side bids for quantity of energy services from a plurality of energy services consumers over the communication network;

(b) receiving at least one real time condition comprising data related to at least one of the generating units for the predetermined time interval that is different from at least one quantity of the supply side bids or quantity of the demand side bids;

(c) arranging, according to price, the supply side bids from the energy service providers that dispatched energy services for the predetermined interval based on the real time condition;

(d) electronically calculating a clearing price for the dispatched energy services regardless of location in the energy system for the predetermined time interval, the calculating of the clearing price being performed after dispatching the energy services in order to account for the real time condition, wherein the clearing price is a price for a supply side bid arranged in step (c) at which quantities for supply side bids equals the energy services dispatched to the consumers, the clearing price being equal for the energy services dispatched to all consumers that received energy services; and

(e) calculating settlement information based upon the clearing price calculated in step (d).

9. Claims 2-5 and 8-41 are dependent upon claim 1, thus have all the limitations of independent claim 1 and are allowable for the same reason.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kambiz Abdi whose telephone number is (703) 305-3364. The examiner can normally be reached on 9 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James P Trammell can be reached on (703) 305-9768. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Any response to this action should be mailed to:

**Commissioner of Patents and Trademarks  
Washington, D.C. 20231**

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or faxed to:

(703) 872-9306 [Official communications; including After Final communications labeled "Box AF"]

(703) 746-7749 [Informal/Draft communications, labeled "PROPOSED" or "DRAFT"]

Hand delivered responses should be brought to:

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7th floor receptionist, Arlington, VA, 22202**

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Primary Examiner  
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**KAMBIZ ABDI**  
**PRIMARY EXAMINER**



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